AMENDMENTS TO THE CLAIMS

1.-14. (Cancelled).

15. (Currently amended) A buccal spray composition for transmucosal administration of a pharmacologically active compound comprising:

an active compound in an amount of between 0.1 and 25 percent by weight of the total composition selected from the group consisting of anti-opioid agents, anti-migraine agents, pain control agents, anesthetics, and mixtures thereof;

a polar solvent in an amount between 10 and 97 percent by weight of the total composition; ~~and~~

a propellant in an amount between 2 and 10 percent by weight of the total composition, wherein said propellant is a C_3 to C_8 hydrocarbon of linear or branched configuration~~.~~; and

wherein the composition is capable of providing transmucosal absorption of the active compound through the oral mucosa of a mammal to the systemic circulatory system of the mammal.

16. (original) The composition of claim 15, further comprising a flavoring agent in an amount between 0.05 and 10 percent by weight of the total composition.

17. (original) The composition of claim 16, wherein the polar solvent is present in an amount between 20 and 97 percent by weight of the total composition, the active compound is present in an amount between 0.1 and 15 percent by weight of the total composition, the propellant is present in an amount between 2 and 5 percent by weight of the composition, and the flavoring agent is present in an amount between 0.1 and 5 percent by weight of the total composition.

18. (original) The composition of claim 17, wherein the polar solvent is present in an amount between 25 and 97 percent by weight of the total composition, the active compound is present in an amount between 0.2 and 25 percent by weight of the total composition, the propellant is present in an amount between 2 and 4 percent by weight of the composition, and flavoring agent is present in an amount between 0.1 and 2.5

percent by weight of the total composition.

19. (original) The composition of claim 15, wherein the polar solvent is selected from the group consisting of polyethyleneglycols having a molecular weight between 400 and 1000, C_2 to C_8 mono- and poly-alcohols, and C_7 to C_{18} alcohols of linear or branched configuration.

20. (original) The composition of claim 19, wherein the polar solvent comprises aqueous polyethylene glycol.

21. (original) The composition of claim 19, wherein the polar solvent comprises aqueous ethanol.

22. (original) The composition of claim 15, wherein the active compound is an anti-opioid agent selected from the group consisting of naloxone, nalmefene, naltrexone, cholecystokinin, nociceptin, neuropeptide FF, oxytocin, vasopressin, and mixtures thereof.

23. (original) The composition of claim 15, wherein the active compound is an anti-migraine agent selected from the group consisting of frovatriptan, zolmitriptan, rizatriptan, almotriptan, eletriptan, naratriptan, almotriptan, ergotamine, diethylergotamine, sumatriptan, and mixtures thereof.

24. (original) The composition of claim 15, wherein the active compound is a pain control agent selected from the group consisting of non-steroidal anti-inflammatory drugs, alfentanil, butorphanol, codeine, dezocine, fentanyl, hydrocodone, hydromorphone, levorphanol, meperidine, methadone, morphine, nalbuphine, oxycodone, oxymorphone, propoxyphene, pentazocine, sufentanil, tramadol, and mixtures thereof.

25. (original) The composition of claim 15, wherein the active compound is an anesthetic selected from the group consisting of benzonatate, bupivacaine, desflurane, enflurane, isoflurane, levobupivacaine, lidocaine, mepivacaine, prilocaine, propofol, rapacuronium bromide, ropivacaine, sevoflurane, ketamine, and mixtures thereof.

26. (original) The composition of claim 16, wherein the flavoring agent is selected from the group consisting of synthetic or natural oil of peppermint, oil of spearmint, citrus

oil, fruit flavors, sweeteners, and mixtures thereof.

27. (original) The composition of claim 15, wherein the propellant is selected from the group consisting of propane, *N*-butane, *iso*-butane, *N*-pentane, *iso*-pentane, *neo*-pentane, and mixtures thereof.

28. (Currently amended) A method of administering a pharmacologically active compound to the systemic circulatory system of a mammal comprising spraying the oral mucosa of the mammal with the composition of claim 15.

29. (original) The method of claim 28, wherein the amount of the spray is predetermined.

30.-40. (Cancelled).

41. (Currently amended) A buccal spray composition for transmucosal administration of a pharmacologically active compound comprising:

an active compound in an amount between 0.05 and 50 percent by weight of the total composition selected from the group consisting of anti-opioid agents, anti-migraine agents, pain control agents, anesthetics, and mixtures thereof; ~~and~~

a non-polar solvent in an amount between 19 and 85 percent by weight of the total composition; ~~and~~

a propellant in an amount between 5 and 80 percent by weight of the total composition, wherein said propellant is a C_3 to C_8 hydrocarbon of linear or branched ~~brancched~~ configuration.; and

wherein the composition is capable of providing transmucosal absorption of the active compound through the oral mucosa of a mammal to the systemic circulatory system of the mammal.

42. (original) The composition of claim 41, further comprising a flavoring agent in an amount of between 0.1 and 10 percent by weight of the total composition.

43. (original) The composition of claim 42, wherein the flavoring agent is selected from the group consisting of synthetic or natural oil of peppermint, oil of spearmint, citrus oil, fruit flavors, sweeteners, and mixtures thereof.

44. (Currently amended) A buccal spray composition for transmucosal administration of a pharmacologically active compound comprising:

an active compound in an amount between 0.01 and 40 percent by weight of the total composition selected from the group consisting of anti-opioid agents, anti-migraine agents, pain control agents, anesthetics, and mixtures thereof; ~~and~~

a non-polar solvent in an amount between 25 and 89 percent by weight of the total composition;

a propellant in an amount between 10 and 70 percent by weight of the total composition, wherein said propellant is a C_3 to C_8 hydrocarbon of linear or branched ~~branceched~~ configuration; ~~and~~

~~A~~a flavoring agent ~~is present~~ in an amount between 1 and 8 percent by weight of the total composition~~.~~; and

wherein the composition is capable of providing transmucosal absorption of the active compound through the oral mucosa of a mammal to the systemic circulatory system of the mammal.

45. (original) The composition of claim 44, wherein the propellant is present in an amount between 20 and 70 percent by weight of the total composition, the non-polar solvent is present in an amount between 25 and 75 percent by weight of the total composition, the active compound is present in an amount from between 0.25 and 35 percent by weight of the total composition, and the flavoring agent is present in an amount between 2 and 7.5 percent by weight of the total composition.

46. (original) The composition of claim 42, wherein the propellant is selected from the group consisting of propane, *n*-butane, *iso*-butane, ~~*n*-pantane~~*n*-pentane, *iso*-pentane, *neo*-pentane, and mixtures thereof.

47. (original) The composition of claim 46, wherein the propellant is *n*-butane or *iso*-butane and has a water content of not more than 0.2 percent and a concentration of oxidizing agents, reducing agents, Lewis acids, and Lewis bases of less than 0.1 percent.

48. (original) The composition of claim 41, wherein the solvent is selected from the group consisting of (C_2-C_{24}) fatty acid (C_2-C_6) esters, C_7-C_{18} hydrocarbons of linear or branched configuration, C_2-C_6 alkanoyl esters, and triglycerides of C_2-C_6 carboxylic acids.

49. (original) The composition of claim 48, wherein the solvent is miglyol.

50. (original) The composition of claim 41, wherein the active compound is an

anti-opioid agent selected from the group consisting of naloxone, nalmefene, naltrexone, cholecystokinin, nociceptin, neuropeptide FF, oxytocin, vasopressin, and mixtures thereof.

51. (original) The composition of claim 41, wherein the active compound is an anti-migraine agent selected from the group consisting of frovatriptan, zolmitriptan, rizatriptan, almotriptan, eletriptan, naratriptan, almotriptan, ergotamine, diethylergotamine, sumatriptan, and mixtures thereof.

52. (original) The composition of claim 41, wherein the active compound is a pain control agent selected from the group consisting of non-steroidal anti-inflammatory drugs, alfentanil, butorphanol, codeine, dezocine, fentanyl, hydrocodone, hydromorphone, levorphanol, meperidine, methadone, morphine, nalbuphine, oxycodone, oxymorphone, propoxyphene, pentazocine, sufentanil, tramadol, and mixtures thereof.

53. (original) The composition of claim 41, wherein the active compound is an anesthetic selected from the group consisting of benzonatate, bupivacaine, desflurane, enflurane, isoflurane, levobupivacaine, lidocaine, mepivacaine, prilocaine, propofol, rapacuronium bromide, ropivacaine, sevoflurane, ketamine, and mixtures thereof.

54. (Currently amended) A method of administering a pharmacologically active compound to the systemic circulatory system of a mammal comprising spraying the oral mucosa of the mammal with the composition of claim 41.

55. (original) The method of claim 54, wherein the amount of the spray is predetermined.